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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/696,176	10/28/2003	Tomonari Horikiri	1232-5185	6564
27123	7590	11/01/2006	EXAMINER	
MORGAN & FINNEGAN, L.L.P. 3 WORLD FINANCIAL CENTER NEW YORK, NY 10281-2101			MOON, SEOKYUN	
			ART UNIT	PAPER NUMBER
			2629	

DATE MAILED: 11/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/696,176	HORI KIRI, TOMONARI	
	<b>Examiner</b>	<b>Art Unit</b>	
	Seokyun Moon	2629	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 August 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 6-11 and 13-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 6-11 and 13-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments with respect to **claim 6** have been considered but are moot in view of the new ground(s) of rejection.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 6-11 and 13-17** are rejected under 35 U.S.C. 103(a) as being unpatentable over Katase (US 6,525,865) in view of Loxley (US 6,262,833).

As to **claim 6**, Katase teaches a process for producing an electrophoretic display [abstract] [fig. 16] by using electrophoretic particles ("*electrophoretic particle 3*"), a dispersion medium ("*dispersion medium 2*"), and a color filter [col. 15 lines 20 – 30] as optical members comprising steps of:

providing one of the optical members ("*dispersion 1*") with a dye which is colored [col. 19 lines 39-42], and

confining the dispersion medium and the electrophoretic particles in a plurality of spaces ("*divided cell 11C*") [fig. 1] on a substrate ("*substrate 100*").

Katase does not expressly disclose that the dye is to be colored by an energy beam.

However, Loxley teaches a method of coloring dye included in a medium of an encapsulated electrophoretic display with either visible or ultraviolet light [col. 17 lines 38-46].

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the dye included in Katase's medium to be photoactive, as taught by Loxley, in order to allow a method of changing the color of a dye included in an electrophoretic display remotely rather than manufacturing the dye with a limited color.

As to **claim 7**, Katase modified by Loxley teaches that the member to be colored is at least one of the electrophoretic particles, the dispersion medium, and the color filter layer [Katase: col. 19 lines 39-42].

As to **claim 8**, Katase [fig. 14] teaches a step of spatially sealing ("*sealer 202*") hermetically the electrophoretic particles ("*electrophoretic particle 3*") and the dispersion medium ("*dispersion medium 2*").

As to **claim 9**, Katase modified by Loxley teaches that the coloring step is performed after the hermetically sealing step ("*changing to another color upon irradiation with either visible or ultraviolet light, in encapsulated electrophoretic display*") [Loxley: col. 17 lines 38-46].

As to **claim 10**, Katase modified by Loxley teaches that the external stimulus is selected from the group consisting of thermal energy, light energy, electron ray,  $\gamma$  ray, and X ray [Loxley: col. 17 lines 38-41].

As to **claim 11**, Katase [fig. 3] teaches that at least one pixel is a plurality of pixels.

As to **claim 13**, Katase modified by Loxley teaches that the external stimulus ("*visible or ultraviolet light*") is applied in a state that the electrophoretic particles and the dispersion medium are encapsulated in a microcapsule [Loxley: col. 17 lines 38-46].

As to **claim 14**, Katase teaches the dye (the dye included in the medium) [col. 19 lines 39-42] being encapsulated in a microcapsule ("*cell having dimension of microns in length*") [col. 9 lines 50-52].

As to **claim 15**, Katase modified by Loxley teaches that the dye is a nearinfrared absorption ("*visible*") colorant [Loxley: col. 17 lines 38-42].

As to **claim 16**, Katase modified by Loxley teaches that the dye is a mixture of photosensitive to blue, green, and red light ("*visible light*") [Loxley: col. 17 lines 38-42].

As to **claim 17**, Katase modified by Loxley [Katase: fig. 16] teaches that the one of optical modulation members (Katase: "*medium 2*" including a dye) is colored various colors in a pixel by applying various energy beams (Loxley: "*visible or ultraviolet light*") in the pixel [Loxley: col. 17 lines 38-42].

### **Conclusion**

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Duthaler (US 2004/0155857) teaches an electrophoretic display including an electrophoretic medium comprising at least two types of particles having substantially the same electrophoretic mobility but differing colors.

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Seokyun Moon whose telephone number is (571) 272-5552. The examiner can normally be reached on Mon - Fri (8:30 a.m. - 5:00 p.m.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

October 25, 2006

S.M.

AMR A. AWAD  
SUPERVISORY PATENT EXAMINER

A handwritten signature in black ink, appearing to read "Amr A. Awad", with a long horizontal line extending to the right.